PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Hideki TAKAMATSU et al. Attn: PCT Branch

Application No. New U.S. National Phase of PCT/JP2004/018967

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For: VEHICLE INTEGRATED CONTROL SYSTEM

SUBMISSION OF THE ANNEXES TO THE INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Attached hereto is a copy of the annexes to the International Preliminary Report on Patentability (Form PCT/IPER/409). The attached material replaces the claims.

Respectfully submitted,

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CLAIMS

1.(Amended) A vehicle integrated control system comprising:

a plurality of control units (PT, ECB, STR) controlling a running state of a vehicle based on a manipulation request; and

a processing unit generating information to be used at said control unit (PT, ECB, STR) and providing the generated information to each said control unit (PT, ECB, STR); wherein

said processing unit includes

a determination unit for determining driver's intention to avoid torque fluctuation involved with at least one of sudden deceleration/acceleration and speed change, and

a calculation unit for calculating information related to a control target to manipulate an actuator set in correspondence with each said control unit (PT, ECB, STR), said control target being in accordance with an expected value of a driver based on determined said driver's intention, based on environmental information around said vehicle and said manipulation request, and calculating information for allotting a driving force and a braking force in said control unit (PT, ECB, STR), based on information related to said calculated control target.

2. The vehicle integrated control system according to claim 1, wherein

said calculation unit calculates said information with priority being placed on a time for attaining said control target.

3. The vehicle integrated control system according to claim 1, wherein

said calculation unit calculates said information with priority being placed on drivability.

4. The vehicle integrated control system according to claim 1, wherein

said calculation unit calculates said information with priority being placed on energy efficiency of said vehicle.

5. The vehicle integrated control system according to claim 1, wherein said environmental information represents information on surroundings of the vehicle at present.

6. The vehicle integrated control system according to claim 1, wherein said environmental information represents information on surroundings of the vehicle in future.

7. The vehicle integrated control system according to claim 1, wherein said environmental information represents information on an acceleration/deceleration state of said vehicle.

8. The vehicle integrated control system according to claim 1, wherein said environmental information represents information sensed by a navigation device.

9. The vehicle integrated control system according to claim 1, wherein said environmental information represents information sensed by a radar device.

10. The vehicle integrated control system according to any one of claims 1 to 8, wherein said manipulation request is obtained by sensing an operated amount as to an accelerator manipulation and a brake manipulation by a driver.

11. The vehicle integrated control system according to any one of claims 1 to 8,

wherein

said manipulation request is obtained by sensing an operated amount as to an accelerator manipulation, a brake manipulation, and a transmission manipulation by a driver.

12.(Amended) A vehicle integrated control system comprising:

a plurality of control units (PT, ECB, STR) controlling a running state of a vehicle based on a manipulation request; and

a processing unit generating information to be used at said control unit (PT, ECB, STR) and providing the generated information to each said control unit (PT, ECB, STR); wherein

said processing unit includes

means for determining driver's intention to avoid torque fluctuation involved with at least one of sudden deceleration/acceleration and speed change, and

calculation means for calculating information related to a control target to manipulate an actuator set in correspondence with each said control unit (PT, ECB, STR), said control target being in accordance with an expected value of a driver based on determined said driver's intention, based on environmental information around said vehicle and said manipulation request, and calculating information for allotting a driving force and a braking force in said control unit (PT, ECB, STR), based on information related to said calculated control target.

13. The vehicle integrated control system according to claim 12, wherein said calculation means includes means for calculating said information with priority being placed on a time for attaining said control target.

14. The vehicle integrated control system according to claim 12, wherein said calculation means includes means for calculating said information with

priority being placed on drivability.

15. The vehicle integrated control system according to claim 12, wherein said calculation means includes means for calculating said information with priority being placed on energy efficiency of said vehicle.

16. The vehicle integrated control system according to claim 12, wherein said environmental information represents information on surroundings of the vehicle at present.

17. The vehicle integrated control system according to claim 12, wherein said environmental information represents information on surroundings of the vehicle in future.

18. The vehicle integrated control system according to claim 12, wherein said environmental information represents information on an acceleration/deceleration state of said vehicle.

19. The vehicle integrated control system according to claim 12, wherein said environmental information represents information sensed by a navigation device.

20. The vehicle integrated control system according to claim 12, wherein said environmental information represents information sensed by a radar device.

21. The vehicle integrated control system according to any one of claims 12 to 19, wherein

said manipulation request is obtained by sensing an operated amount as to an

accelerator manipulation and a brake manipulation by a driver.

22. The vehicle integrated control system according to any one of claims 12 to 19, wherein

said manipulation request is obtained by sensing an operated amount as to an accelerator manipulation, a brake manipulation, and a transmission manipulation by a driver.